

**ARIZONA CORPORATION COMMISSION
SPECIAL OPEN MEETING MINUTES**

DATE: April 20, 2001

TIME: 12:30 p.m.

PLACE: Arizona Corporation Commission, 1400 W. Washington, Room 370, Phoenix, Arizona 85007

ATTENDANCE: No Quorum of Commissioners. See attendance list in Attachment 1.

TOPIC: ENVIRONMENTAL PORTFOLIO STANDARD (EPS) WORKSHOP

MATTERS DISCUSSED:

Ray Williamson of Commission Staff welcomed everyone to the meeting. All participants introduced themselves.

The minutes from the March 23, 2001, meeting were discussed. David Rowley asked for his name to be added to the Subcommittee on Photovoltaic Standards.

The Master Issues List was discussed. No changes were made.

The group discussed the Environmental Portfolio Standard surcharge. APS and TEP have begun charging the surcharge. Some of the cooperatives will begin charging the surcharge by May 1. Others are postponing the collection of the surcharge as allowed by the recent Commission decision. SRP is using its System Benefit Charge to cover the costs of renewables.

AEPCO will be issuing a Solicitation for Proposals early next week. Anyone wanting to get on the list should e-mail AEPCO at Jstukes@aepnet.org. The deadline for responding to the solicitation is May 15, 2001.

Steve Chalmers gave a report from the Photovoltaic Standards Subcommittee. There were two handouts with comments from Lane Garrett and Tom Hansen on a draft of Photovoltaic Standards for Small Un-metered Systems. Mr. Chalmers suggested developing a strawman for use as a model by those who do not already have programs in place. The group decided that a meter would be used if a system is over a certain size. Systems under a certain size would not be metered. Standards would be needed for unmetered systems. The committee will develop a proposal on the threshold size and the standards for unmetered systems. On-grid and off-grid systems may need different standards. The committee will also look at how existing systems are to be handled. A question was raised about systems that are available only part of a year.

David Berry presented his proposed wording for Environmental Portfolio Standard Guidelines (Attachment 2). To avoid confusion with other uses of the terms "credit" or "tag," he used the term "Green Certificate." There was discussion about the sale of Green Certificates separate from kWh on customer premises. This document could become operating guidelines to be submitted to the Utilities Director for approval. The following suggestions were made for modifications to the document: (1) add a provision for Green Certificates to have expiration dates, (2) in #1 under Standards for Green Certificates, use energy "sold" instead of "generated," (3) add "in-state" to various parts of the document, (4) change "Green Certificate" to "EPS Certificate." Mr. Berry offered to award a Navigant coffee cup to whomever comes up with the best name for "Green Certificate." Mr. Berry agreed to chair the Green Certificate Committee. Other committee members are Rick Gilliam, Biff Hoffman, Bud Annan, Phil Key, Paul Michaud, Daniel Musgrove. Comments are to be sent to Mr. Berry at dberry@navigantconsulting.com by May 4, 2001.

Mr. Hoffman presented comments that he wrote on contractors and examples to work through. The group will discuss all those comments along with others submitted at the next meeting.

The next meeting of the working group will be held on May 21, 2001, at 12:30 p.m. in the Pipeline Safety Conference Room at 1200 W. Washington. The next agenda will include the issue of credits being separated from kWh at customer-owned sites.

Barbara Keene, Utilities Division

Participants at Environmental Portfolio Standard Workshop
April 20, 2001

Name	Organization
Bud Annan	Arizona Clean Energy Industries Alliance
David Berry	Navigant Consulting
Scott Canada	Arizona Public Service
Steve Chalmers	PowerMark
David Couture	Tucson Electric Power
Donald R. Garrett	Danneypat Solar
Lane S. Garrett	ETA Engineering, Inc.
Rick Gilliam	Land and Water Fund of the Rockies
Byford E. Hoffman	Salt River Project
Scott Kaminky	Global Solar Energy
Barbara Keene	Commission Staff
Phil Key	First Solar
Cassius McChesney	Pinnacle West
Paul Michaud	York Research Corp.
Wayne Monie	First Solar
Bill Murphy	City of Phoenix
Daniel Musgrove	Universal Entech
Art Rivera	Renewable Tech
David Rowley	Solar Farms, Inc.
Lee Tanner	ElectriSol
John Wallace	Grand Canyon State Electric Cooperative Assoc.
Ray Williamson	Commission Staff



MEMORANDUM

TO: Ray Williamson
Arizona Corporation Commission

FROM: David Berry

DATE: April 2, 2001

SUBJECT: Proposed Wording for Environmental Portfolio Standard Guidelines

The following are suggestions on behalf of Navopache Electric Cooperative regarding wording for Environmental Portfolio Standard guidelines as required by A.A.C. R14-2-1618(K).

Standards for Green Certificates

(Note: this section addresses trading of credits or tags. To avoid confusion with other uses of the terms "credit" or "tag," the term "Green Certificate" is used).

To implement the trading provisions of R14-2-1618(H), the following standards apply:

1. A Green Certificate represents one kilowatt hour (kWh) of energy generated by eligible renewable energy or environmentally friendly technologies as set forth in A.A.C. R14-2-1618 or one kWh of any extra credit multipliers permitted by A.A.C. R14-2-1618.
2. Green Certificates correspond to the specific underlying energy production technology, so that the minimum and maximum requirements by technology set forth in A.A.C. R14-2-1618 can be clearly met.
3. Unless transferred by the owner(s) of facilities producing energy from eligible renewable energy or environmentally friendly technologies as set forth in A.A.C. R14-2-1618, Green Certificates are owned by the owner(s) of such facilities.
 - a. The owner may be an entity that is not be subject to the jurisdiction of the Commission.
 - b. In cases where the facilities are subsidized by or financed by a Load Serving Entity but are not owned by the Load Serving Entity, the agreement to provide such subsidy or financing must specify who owns the Green Certificates.

4. Unless retired as required in these standards, a Green Certificate does not expire until the Environmental Portfolio Standard has been terminated by the Commission.
5. Green Certificates are separate from electrical or thermal energy and may be used by a Load Serving Entity to meet its requirements under A.A.C. R14-2-1618 without the physical delivery of energy to the Load Serving Entity.
6. A Green Certificate may be traded, sold, or otherwise transferred by its owner to any other party. Such transfer does not require the physical delivery of electrical or other energy but may consist only of accounting entries reflecting the transfer.
7. Green Certificates may be used by any Load Serving Entity to meet any applicable portion of its portfolio requirements under A.A.C. R14-2-1618.
8. If a Green Certificate is used to meet a Load Serving Entity's portfolio requirements under R14-2-1618, that Green Certificate must be retired and cannot be transferred or further used by any Load Serving Entity to meet its portfolio requirements under R14-2-1618.
9. Both the transferor and the transferee of Green Certificates shall keep adequate records to document the transfer of Green Certificates, including the quantity of Green Certificates transferred, the underlying eligible resource, and applicable extra credit multipliers.
10. Unless the transferor and transferee agree otherwise, the transferor of Green Certificates shall be responsible for documenting that:
 - a. the Green Certificates are derived from eligible resources,
 - b. extra credit multipliers, if any are transferred, have been determined in accordance with A.A.C. R14-2-1618, and
 - c. the specific Green Certificates have not been retired or transferred to another party.

Comment: R14-2-1618(F) states that PV or solar thermal electric resources located on a consumer's premises count toward the portfolio standard of the current Load Serving Entity serving the consumer. This provision may conflict with the above guidelines which assign ownership of a Green Certificate to the owner of the underlying generating facility unless that ownership has been explicitly transferred to another party. If 1618(F) is enforced, it will deter Load Serving Entities from owning PV or other systems located on consumers' premises unless there is a side agreement between the Load Serving Entity and the consumer regarding ownership of Green Certificates.

Use of System Benefits Charges for Portfolio Uses

R14-2-1618(A)(2) indicates that Utility Distribution Companies "would" recover part of the costs of the portfolio standard through current System Benefits Charges. The following is a proposed standard regarding the use of System Benefits Charges for portfolio uses:

Uncommitted revenues from demand side management (DSM) programs covered by System Benefits Charges shall be re-allocated to meet the portfolio standard of A.A.C. R14-2-1618. However, in the discretion of the Utility Distribution Company, System

Benefits Charge revenues allocated to DSM program commitments made prior to the adoption of A.A.C. R14-2-1618 need not be re-allocated to meet the portfolio standard.

In-State Content

The in-state manufacturing and installation content extra credit multiplier, A.A.C. R14-2-1618(C)(2)(b), refers to the percentage of Arizona content of the total installed plant cost. This section proposes a standard to define how that percentage is determined.

The percentage of Arizona content of the total installed plant cost used to determine the In-State Manufacturing and Installation Content Extra Credit Multiplier set forth in A.A.C. R14-2-1618(C)(2)(b) shall be calculated as follows:

$$P = (AZI/T), \text{ expressed as a percentage}$$

where:

- P** = percentage of Arizona content included in the value of eligible energy production facilities; P cannot exceed 100 percent and cannot be less than 0.
- AZI** = the value of Arizona inputs used in the fabrication and installation of eligible facilities. AZI consists of compensation of Arizona employees engaged in the installation of the eligible facility and the value of other inputs into the installed facility that were manufactured or assembled in Arizona. AZI excludes the value of land or easements. Installation includes interconnection to the grid, if applicable.
- T** = the total installed cost of the eligible facility, excluding land or easements.

To reduce the analysis costs for determining the origin of inputs, the following guidelines shall be used unless the owner of the facility has well documented alternative values:

1. The facility costs shall be disaggregated into major components such as installation labor (i.e., compensation of employees involved in the installation of the project at the project site), modules, parabolic troughs, mounting structures, foundations, tracking equipment, electronic controls including inverters, batteries, conduit, conductors, communications equipment, meters, circuit breakers, switches, transformers, insulators, lighting, pipes, fences, and grading.
2. All installation labor costs for in-state projects are assumed to be Arizona inputs.
3. One half the cost of individual major components of the facility that are manufactured or assembled in Arizona shall be assumed to be Arizona inputs.

Example: A PV system is installed for \$100,000. The supplier of the PV system states that installation labor costs were \$10,000 and that \$8,000 of mounting structures were purchased from an Arizona metal fabricator. No other components of the PV system

were obtained from Arizona manufacturers. The Arizona content is \$10,000 for labor plus one half of \$8,000 for the mounting structures for a total of \$14,000. P is therefore 14 percent.

Metering of Small Solar Electric Systems

Solar electric systems whose nameplate capacity is 10 kW or less shall be metered if feasible and cost effective to do so. Where no meter is installed on a system that is 10 kW or less, annual kWh output shall be estimated by multiplying the nameplate capacity (in kW) by 8760 hours per year by a 20 percent capacity factor. Such estimates of unmetered facilities shall be accepted by the Commission staff only if the facilities have been inspected at least once within the 6 months prior to reporting kWh production and have been found to be fully operational during that inspection or have been repaired to be fully operational.